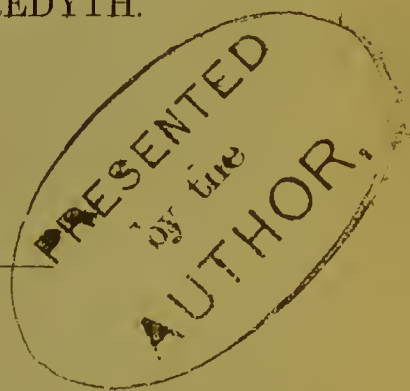


ON THE  
RATIONAL EMPLOYMENT OF MERCURY  
IN THE  
TREATMENT OF SYPHILIS.

BY  
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LONDON:  
ROBERT HARDWICKE, 192 PICCADILLY.

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## P R E F A C E.

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ALTHOUGH it has become the fashion of late to decry the employment of mercury in the treatment of syphilis, on the assumption that more cases are aggravated than benefited by its use, I do not hesitate in saying that the proofs brought forward, to support that opinion, are quite irrelevant to the point in dispute.

The anti-mercurialists still rely, to sustain their doctrine, on observations of cases where mercury had been administered to contend against primary symptoms, the nature of which had not been satisfactorily ascertained, or in which accidents resulted from its excessive or unwarrantable exhibition ; accidents, thanks to our pathological progress, always easily obviated, differing, as they do, from those of syphilitic origin in their diagnosis and resolution.

Besides, it is now clearly established that all primary ulcers, whether syphilitic or venereal, will cure spontaneously, and that, when administered at the period of the primary symptom, mercury can, at most, only retard the breaking out of syphilitic eruptions. It is, therefore, quite immaterial to show that, when mercury was indiscriminately or prematurely prescribed for *all* primary ulcers, *whatever their nature*, much mischief was wrought, and unnecessary suffering inflicted on the unhappy patients.

I am far from being an uncompromising mercurialist ; on the contrary, I am well aware that, in many mild forms of syphilis, mercury can safely be dispensed with,

and I have recourse to it but where its employment is imperatively called for ; not that I anticipate any inconvenience from its use—the following remarks are intended to prove the converse of this proposition—but because experience has taught me that, in severe cases, mercury has proved itself to be an indisputably reliable agent.

Until the anti-mercurialists shall adduce, in support of their doctrine, facts based on cases not liable to objections, on the score of the want of authenticity of the nature of the disease, I maintain that they have made out no case against a mercurial treatment. The hackneyed sentimentalism pervading their most recent publications may certainly lead astray the unprofessional public, and influence the timid practitioner ; but their arguments will never enlist the support of the judicious and experienced physician who is at all conversant with modern discoveries, due to more enlightened researches into the natural history of syphilis.

I have, in the following pages, endeavoured to give a succinct summary of the vicissitudes of mercury, and of the differential characteristics of the symptoms of hydrargyriasis and those of syphilis. What I have added concerning the employment of specifics in the treatment of syphilis is merely intended to evoke the meditations of my compeers on a point of vital importance in practice, and to win over, to the side of truth and reason, the wavering and bewildered student. However imperfect the effort, I trust my motive will plead in extenuation of its incompleteness.

A. W. L. C. M.

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WHEN we contemplate the phenomena of syphilis, the varied aspects of its initiatory lesions, the wide range of its multifarious symptoms, their frequently recurring and perplexing relapses, we shall cease to wonder that the nature of the disease should be involved in great obscurity.

In the present instance, I purpose to confine my remarks to the difficulties with which the treatment of venereal diseases is so often embarrassed, and, in order to avoid confusion, I wish it to be understood that I shall employ the term *syphilis*, to the general or constitutional disease hereditarily acquired, or originating in an ulcer of the genital organs, arising from contagion, and the term *venereal* to all other affections, resulting from local contagion to the same parts ; for, notwithstanding that these affections and syphilis have some analogical symptoms, yet being of different natures, they require very different modes of treatment.

Although the doctrine of the specific duality of

primary ulcers is generally adopted on the continent, this doctrine has made but little way in this country ; however, it has materially contributed towards unsettling the opinions of practitioners, and the whole question remains, at present, in a state of doubt and uncertainty which may very justly be styled perplexing.

But, whatever opinions may be entertained of the doctrines of the dualistic school, I believe it will be conceded that the inquiries, out of which they sprung, were commenced and have been prosecuted in a spirit entitled to our respect and demanding our most serious consideration ; for it is evident that from the conflict must result a confirmation of the present line of practice or a revolution in the methods of treatment.

As a general rule we may fairly conclude that in therapeutics, the test of the value of a theory consists in the successful issue of its principles from the ordeal of experimentation and practice ; however, it seems an exception has been made to this rule in respect to syphilis, for we shall find as we proceed, that, as regards its treatment, theory has more frequently forced its laws upon than guided practice.

When the great epidemic of the 15th century broke out, the physicians of the day were so struck with the new character of the disease, that they were at a loss to know what remedies to employ to check its ravages. Those physicians who were indebted for their theoretical knowledge to the writings of the ancients,—who have so admirably described the local affections of the genital organs and their modes of cure—never committed the egregious folly of confounding the new



disease with those disorders, or of having recourse to the same remedies ; but as the scourge rapidly spread among all classes of society, the people appalled and impatient of relief sought alleviation of their woes at the hands of empirics, who, having observed a certain analogy between the new disease and leprosy, dared to appeal to mercury, in defiance of penalties and punishments that awaited them in the event of discovery. The happy results obtained by bold adventurers, through the use of mercury, soon called forth the attention of the regular professors of the healing art to the therapeutic value of this medicament. As early as 1496, Grunbeck, among other modes of treatment recommended by him, mentions mercury in conjunction with purging and bleeding, as being applicable to the cure of syphilis ; and at the dawn of the 16th century its use seems to have already obtained as a heroic remedy. Joannes de Vigo in 1503 employed it in various forms : he praises the fumigations of cinnabar and the emplastrum which to this very day bears his name. Vidus Vidius preferred fumigations to inunctions, while Fracastor disapproved of general fumigations and considered that inunctions should be applied to the membranes only. Beranger de Carpi was the chief promoter of inunctions ; the immense fortune he was known to have acquired, by the use of mercurial ointment, became a determining reason to other physicians for adopting his practice. Later, inunctions enlisted Nicolas Massa in their favour, in preference to every other method, and it is comparatively but recently and since salivation has been recognized to

be positively injurious that they have been, as a rule, definitively abandoned.

It appears that the first who dared to prescribe mercury internally was Petrus Andrea Matthiolus, the commentator of Dioscorides ; but Sprengel states that to Paracelsus must revert the honour of having introduced a better method of administering mercury, and of having established the practice of exhibiting this drug internally in preference to every other mode. Certain it is, that since Paracelsus, the testimonies in favour of the efficacy of mercury, administered in all its forms and through every channel, in the treatment of syphilis, are so authentic and confirmed by daily experience, that it has come to be recognized as the most reliable remedy, in spite of the many objections and violent attacks it has had, and still has to encounter.

Nevertheless, there is reason to believe that at that early period mercury was almost exclusively employed by empirics, for we find Gaspard Torella raising his authoritative voice to denounce its employment. There can be no doubt that a limited knowledge of the effects of mercury, of its accumulative powers, and capricious action, must, in the hands of unskilful men, have very frequently occasioned most disastrous results, especially if we bear in mind that the pernicious belief then prevailed that the virus was to be expelled by the mouth.

Taught by experience the baneful consequences to be dreaded from the rash employment of mercury, both patients and physicians hailed with acclamations,



the advent of a new remedy. Gonsalvus Fernandus de Oviedo, the governor of the island of Hispaniola, desirous, from political motives, to cast odium on the inhabitants, pretended that syphilis was sporadic in that island—and referring to the beneficent foresight of a providential dispensation that always places a remedy within reach of those suffering from any particular affliction—he assured that the natives from time immemorial had been subjected to the disease and were cognizant of an infallible remedy which consisted in a decoction of an indigenous wood of the Indies called *guaiaecum*. Introduced in Europe in 1517, *guaiaecum* soon acquired a world-wide fame, in consequence of the numerous cures it was pretended to have effected. That illustrious martyr to syphilis, Ulrich Von Hutten, wrote a history of his own case, and an account of his own cure by *guaiaecum*. In his panegyric he informs us that he had struggled with the disease nine whole years, during which, he underwent eleven salivations, besides employing other remedies. At last he was cured by *guaiaecum*. So laudatory is he of the virtues of this wood, that there is scarcely an ill which human flesh is heir to that will not yield to its mighty influence. But, taking Von Hutten's own statement, as a criterion to judge of its virtues, it will very materially detract from its merit, if we bear in mind the reckless manner with which mercury had been administered, and we may safely affirm, that his disease had become mixed, for on the remedies being abandoned and a severe regimen enforced the symptoms began to mend and ultimately a cure was obtained.

So elated were patients and physicians with the success of the new remedy which permitted to steer clear of the dangers resulting from the mal-administration of mercury, that guaiacum became quite the rage, eventually reigning triumphant as a specific. Nevertheless, it was soon discovered that relapses were frequent after its employment. This was, at first, attributed to the inferior quality of the wood which was supposed to lose some of its properties on the voyage to Europe ; hence, it came to be the fashion among the wealthy to transport themselves to the West Indies, in order to undergo the Indian method of treatment. Louis, in his translation of Astruc's work, relates a very interesting instance of two young French nobles, who having failed to obtain a cure in Europe embarked for St. Domingo, and the process of their treatment which was undertaken, in accordance with custom, by native females.

Notwithstanding many similar histories, there were not wanting sceptics who maintained that though guaiacum, sarsaparilla, and other diaphoretics, which had been pressed into the service, might be highly valuable adjuvants, yet they were, in themselves, quite inadequate to contend against obstinate cases. Thus we find the origin of the battle of the mercurialists and the anti-mercurialists to be almost contemporaneous with the invasion of syphilis itself. This war has been waged with wavering fortune ; according to the medical doctrines which have had the ascendancy, mercury has been either ignominiously proscribed or extolled beyond all limits.

The illustrious Gabriel Fallop, a man equally remarkable for the splendour of his talents as the disinterestedness of his character sided with the anti-mercurialists, and he certainly expressed his candid conviction when he qualified the mercurial treatment, as “*omnium curationum acerbissima*,” and so it must have been, according to the mode of administering it practised at that time. On the other side, Ambroise Paré, a man equally eminent, takes quite an opposite view of the matter, he mentions four methods of treatment : by *the* decoctions of guaiacum, by inunctions, by emplastra in the composition of which enters the “ferret” that is quicksilver, *ausquels entre le furet qui est l'argent-vif*,” and lastly, fumigations. He accuses guaiacum of being uncertain, and of insufficient power to extinguish the virus, and prefers to it mercury as possessing all its actions, and without comparison much greater power and virtue.

It would be useless to pursue the elucidation of this point any farther in the then state of syphilography ; each party were able to refer to great authorities in support of their respective views ; we must arrive to the time of Hunter before we reach the foundation on which modern doctrines are based. Let it suffice to state that towards the close of the 17th century guaiacum and sarsaparilla had lost their pristine reputation and sunk to the rank of secondary agents, merely capable of palliating very mild symptoms or of restoring tone to the constitution after the completion of the mercurial course.

But during the first half of the 18th century, a very

marked progress in the right direction set in, a violent reaction ensued against salivation, a warm discussion arose between the advocates of the new method and the partisans of the older doctrines, and ultimately victory remained on the side of reason and common sense. To David Abercrombie may perhaps be ascribed the honour of having wrought this salutary reform, by advocating a milder course of mercury, but Chicoyneau of Montpellier was certainly the first to popularize this point of practice.

We may pass over without comment the volatile alkali so loudly extolled by Peyrilhe ; opium, cicuta, nitrous acid, cantharides, and many other agents that have in turn enjoyed a temporary but ephemeral favour. It remains but to state, that, at the close of the century, mercury had triumphantly asserted its supremacy in the cure of syphilis ; that whilst the beneficial effects to be derived from sarsaparilla, guaiacum and other adjuvants, as restoratives of the constitution, were fully recognized, yet mercury was the *sine quâ non* to effect the cure.

Thus far we have seen that almost from the period of the invasion of syphilis in Europe, mercury was discovered to possess the power of contending with the disease, but that, from a want of discernment in its employment, enough mischief was caused to lead to its being abandoned ; that much of the reputation acquired to the vegetable treatment may, with fairness, be attributed to having in many cases been resorted to after the constitution had become shattered by the abuse of mercury ; that though fallen into disrepute mercury

never was completely discarded and ultimately recovered its character, by almost universal consent, of being the only truly safe and sole reliable agent in the cure of syphilis.

Still, it would be unreasonable to deny that much good must have accrued by the introduction of the vegetable treatment, especially with our present knowledge of what nature and hygiene will do in syphilis and venereal diseases generally; neither would it be just to suppose that such eminent physicians as Fallop, Fernel, and a host of others would, without good cause, have given it the preference.

One thing also appears certain, that though syphilis was a fertile subject for philosophical disquisitions, its natural history was utterly unknown and that the only safe and reliable guides to induction—observation and experimentation—had never been applied to the elucidation of its phenomena. This great achievement was reserved for the illustrious Hunter.

From the time of the publication of Hunter's *Treatise on the Venereal Disease*, a new era in syphilography dates. His inquiries into the nature of the virus, his observations concerning diseases resembling syphilis, the novelty and ingenuity of his ideas are deservedly calculated to call forth our admiration of the originality and comprehensiveness of his mind, and to arrest our attention, as being the basis on which Ricord founded a system of observation and experimentation that has done more to sweep away erroneous theories than all the speculations of other writers on syphilis who have preceded him.



Still it must for ever be a source of profound regret, that Hunter applying his own principles to the elucidation of his theory of the identity of the virus—viz: that gonorrhoea always proceeds from a secreting surface, and the chancre from a non-secreting surface, should, by an unfortunate coincidence, have conferred a semblance of authenticity to a deplorable error which has required the genius of Benjamin Bell and the persistency of Ricord to eradicate.

Yet, we must acknowledge, without reserve, that very great benefits have been conferred by the investigations commenced by Hunter for, until then, no one had emitted an opinion or adduced facts in support of the idea of the existence of diseases resembling syphilis. He remarks that “diseases which resemble others, seldom do it in more than one or two of the symptoms; therefore, whenever the nature of the disease is suspected, the whole of the symptoms should be well investigated, to see whether it agrees in all of them with the disease it is suspected to be, or only in part.” He goes on to state that when few of the symptoms are common we must attribute the disease to the resembling one, but if most of the symptoms are specific we must suppose the disease to be syphilis, as being most probable although by no means certain; that as errors of judgment lead to errors of cure, it becomes of almost as much consequence to avoid a mistake in the one as the other; for where the disease is not present mercury commonly does harm and is dangerous to the constitution.

But two very remarkable passages relating to this



subject call for our special attention. He says "sores on the glans penis, prepuce, &c., in form of chaneres may, and do arise without any venereal infection." Again, "other diseases shall not only resemble the venereal in appearance but in the mode of contamination, proving themselves to be poisons by affecting the part of contact, and from thence producing immediate consequences similar to buboes." On examining the cases he records in illustration of these two propositions and the inference he draws from them, we are led to the conclusion that the criterion which determined whether a disease was syphilitic or not depended upon the possibility of curing it by mercury, and that whenever the symptoms were aggravated by its use, he had been mistaken in the nature of the case.

Abernethy, taking up the further investigation of this intricate point, says, speaking of syphilis and pseudo-syphilis, as he had christened the pretended resembling diseases, "since, then, our senses fail us in our endeavours to discriminate between these two diseases, and since the most important circumstance is to distinguish whether the disease is syphilitic or not, we may inquire whether there are any circumstances in the progress of these different diseases which will serve us in distinguishing one from the other. It appears to me that there are." Now, observe what the distinction is: "that constitutional symptoms of the venereal disease are generally progressive and never disappear unless medicine be employed." Having submitted his opinion to the appreciation of surgeons of great practice and abilities, none of them decidedly

affirmed that constitutional symptoms of syphilis ever spontaneously amended ; whilst all, *without hesitation*, agreed that they were generally progressive till checked by mercury. He, therefore, deemed it useless to seek further information and asks "for what surgeon is there at present, if he sees diseases that cannot be distinguished by the sight from syphilis, and hears that they arose in consequence of chancre, that would suspend his judgment and forbear to administer mercury ?" The whole reasoning of Abernethy's essay rests on the premises that mercury was requisite for the cure of syphilitic chancre, and that whenever the symptoms were aggravated by its use, there had been an error of diagnosis.

The danger of the propagation of the erroneous opinions of men of great professional reputation and authority soon made itself felt. Every patient who caught a chancre was immediately subjected to a course of mercury, the prevailing idea being that the healing of the primary symptom was all important, as the source from which the poison propagated itself into the general circulation. As might have been expected, the pernicious effects of such a lax mode of practice wrought much mischief, and the abuse of a precious remedy speedily brought about a new prescription from which it has been again relieved to occupy a more limited empire, it is true, but at the same time firmer and less disputed.

The return of the English surgeons who had served in the British army during the Peninsular war, created a kind of revolution in the treatment of syphilis. At

this period, the ideas of Hunter, Adams, Abernethy, Carmichael, Bell, Balfour, &c., concerning the plurality of venereal diseases had become popularized and had matured the public mind for a radical reform of the treatment of those diseases. Ferguson, inspector of military hospitals in Portugal, published, on his return to England, his observations of the course and treatment of venereal diseases in that country, and its effect on the British soldier. He noticed that, in the hospitals, mercury was scarcely ever resorted to, but was reserved for those cases where the bones had been attacked, and even then in very small quantities. The native soldiers and civilians were treated by the Portugese surgeons for primary affections by topical means chiefly, the decoction of the woods being sometimes but not always added; even for those of the throat, it was found that irritating gargles were sufficient to cure them as rapidly as chancres. The patients performed their duties and followed their usual avocations; it is true that occasionally frightful examples of mutilations occurred, but they were few and bore no proportion to those that suffered from the primary symptoms; the affections of the bones were rare and slight, for the most part giving way to small doses of calomel, Dover's powder, decoctions of guaiacum, warm baths, &c. Such, however, was far from being the progress of the symptoms in the British army. Here the disease was marked by great intensity, the most frequent character being phagedænic, beginning in violent inflammation and fever which demanded an active treatment, principally of

an antiphlogistic nature. From these facts, Ferguson inferred that in Portugal syphilis had lost much of its virulence, or that the anti-syphilitic properties of the woods were much greater in hot than cold climates. The exceptions he found in his own countrymen he thought were owing to the disease being transplanted into a fresh soil not acclimatized, to their great fatigues, poor food, and licentious habits. Besides, he observed that the same relative mildness occurred in respect to small-pox. Nevertheless, Ferguson was far from supposing that the Portuguese method was applicable to England, for he concludes by saying that mercury affords to the patient the only chance of salvation.

In this state of the question Rose, who had had equal opportunities with Ferguson, in Portugal, began by prescribing very small doses of mercury to his patients, meeting with great success he finished by giving none, and depended exclusively on aperients, sarsaparilla, and local applications; the patients thus treated were carefully examined weekly for a long time after their apparent cure, and it was observed that constitutional accidents occurred in one-third of the patients, that is to say, in the proportion of the simple chancre to the syphilitic chancre, as it has been shown to be by Mr. Alfred Fournier. The observations of Thompson, Guthrie, Hill, Hennen, and others agree, in the main, with those of Rose. At this same time, Harris, Stevens, and Ware, in America, made similar experiments and obtained like results. In France, where the physiological doctrine had already taken root, the



idea of treating syphilis without mercury was necessarily cordially welcomed. The learned Jourdan led the van, as early as 1816, he maintained that syphilis did not exist but only local venereal affections known from the remotest antiquity. Ten years later, he modified his opinions and advised to have recourse to mercury when the sufficiency of the simple treatment had failed. The new opinions were vigorously defended by Broussais and his pupils, Richond des Brus, Dubled, Robillier, Desruelles, and Devergie, the elder, but it is strange to remark that the most energetic and persistent of them all, Desruelles, had so far recanted his errors, that in 1836, he declared certain consecutive accidents amenable to mercury, and in 1840, he goes so far as to enumerate many primary symptoms for which he advises its use.

It would be tedious to pursue any further the vicissitudes of mercury, or to wade through the sea of statistics that have been brought forward by its opponents and partisans in support of their respective doctrines. It will suffice to know that we have gradually returned to the practice of treating syphilis by mercurial preparations ; that syphilization, recently applied as a therapeutic method, continues alone the non-mercurial treatment.

Although I do not, on the present occasion, purpose to enter into an exhaustive exposition of the treatment of syphilis, but shall mostly restrict myself to those accidents that arise during a mercurial course, with a view of distinguishing those that are specifically characteristic of the disease, and those that are due to the

abuse of the medicine, I think it is not out of place to take notice of Wallace's great discovery of the anti-syphilitic properties of the iodide of potassium.

In 1821, Martini, of Lubeck, employed iodine for the cure of ulcers of the throat that had resisted mercury. In 1824, Richond des Brus prescribed the tincture of iodine internally, in doses of twenty to forty drops, and recommended to rub in from one to two drams in cases of blennorrhagia and buboes. In 1831, Lugol published observations of tertiary accidents cured by preparations of iodine alone; thus was prepared the advent of a new anti-syphilitic agent.

Better inspired than his predecessors, Wallace, of Dublin, did not try to thrust out mercury and to substitute in its stead his own panacea, but was content to point out the real anti-syphilitic properties of iodine, combined with potassium, in cases where mercury had stopped short. He commenced his experiments in 1832, and published the results in the form of lectures in the *Lancet*, March, 1836.

The success of Wallace soon attracted general attention. In England, Judd, A. Saville, Winslow, Bullock, R. Williams; in France, Trousseau, Ricord, Payan, Gauthier, Boys de Loury and Costilhes; in Italy, Brera, Sperino, Riberi, Gasea, and Pellizzari; in Germany, Gusman put iodide of potassium to the test and ascertained its good effects. Ricord recognized that tertiary accidents were more readily influenced by this agent than those of the secondary order. The deep-seated accidents of the skin and mucous mem-



branes, the gummy tumours of the cellular tissues, the lesions of the bones, these are the manifestations which appeared to him to more easily give way to the employment of iodide of potassium.

Various modifications of the mode of administering the drug have been attempted, the doses have been lowered or increased according to circumstances, but finally, the originator's practice has been found to be the best, if not always, in the great majority of cases. In conclusion on this part of the subject it may be said that of all agents introduced in the treatment of syphilis, iodide of potassium is the only one that has secured a useful and lasting acknowledgment, by the side of mereury, of possessing incontestable anti-syphilitic properties.

In an inquiry into the curative virtues of a therapeutic agent, as applied to a particular disease, a knowledge of its specific properties in relation to a healthy organism, ought to be the basis on which to establish a standard of comparison between the phenomena it provokes, and those pathogenically engendered by the disease itself. A closer observance of this rule would probably have very materially modified the opinions and *observations* of certain anti-mereurialists, who pandering to the popular prejudice against mereury, seem by their brilliant dialectics to have rather sought to reap the advantages of contemporary celebrity than to confer the solid benefits of unbiassed and philosophical research. Instead of endeavouring to elucidate anomalies, which in reality were but the results of their indiscriminate routine, they have found it

more convenient to retail the arguments of their predecessors, who wrote at a time when venereal diseases were all muddled up in a mass, to vilify and ostensibly prescribe a treatment to which they covertly resort when their much vaunted anti-mercurial systems have failed.

In our present state of knowledge, the mode of action of mercury is only known to us by its effects; consequently we can do no more than investigate the laws that regulate these effects. The latter object is quite within our reach, whilst the former may forever be beyond our comprehension. Our ignorance of how a nerve feels, a muscle acts, or a gland secretes, does not prevent us investigating the laws that govern innervation, muscular action or secretion. It is the grand distinguishing feature of physiology, that it is directed solely by observation and analogy; therapeutics can make sure progress only by following in the same path. Barren speculations as to the mode of action of mercury must be remorselessly banished, and a searching inquiry instituted into the laws that regulate its operation. From a knowledge of these laws we shall be able to direct its employment, perhaps as well as if we were acquainted with the mode in which it acts. At all events, it is the only kind of knowledge within our reach, and it is the only way by which we can hope to acquire at any time a knowledge of its mode of action.

When a person has for a certain time been subjected to the physiological action of mercurials, the effects, resulting from the absorption of the metal, manifest themselves by a cachexia, which it is of the highest

importance to thoroughly understand. The whole skin of the body assumes a sallow and saturnine tint ; the blood loses but little of its colour and consistency, but, if drawn from a vein, it is diffuent and coagulates into a soft clot. However, if the action of the mercury is maintained, the dissolution of the blood soon becomes evident, the eyelids get infiltrated, the face puffy, the legs swell, and a general intumescence of the whole body ensues, followed up by the usual symptoms which denote a liquefaction of the blood, palpitations of the heart, shortness of breath, and various functional derangements. But the phenomenon which most attracts the attention of both patient and physician is salivation. Previous to salivation setting in, the patient experiences a very unpleasant metallic taste, the breath is offensive, the gums swell accompanied by a slightly painful sense of heat ; the swelling begins at the inferior gums between the interstices of the teeth, and the tongue, without thickening, becomes furry, the mucous membrane of the pharynx and velum palati assumes a deeper red and is rather painful ; from the lower gums, the swelling proceeds to the upper, and then spreads to the entire surface of the mucous membrane of the mouth. The general intumescence of the gums causes to the patient a sensation of a lengthening of the teeth, and if the gums are diseased in consequence of decayed teeth, or any other cause, these will fall out and the mercurial inflammation will occur sooner and be more difficult to arrest ; arrived at this stage the flow of saliva sets in.

It was imperative to be so far circumstantial in de-

scribing the progress of the mereurial infection of the mouth, to show that it begun by the mueous membrane ; that salivation was only eonseeutive, and that this phenomenon existed in eommon with all other inflammations and violent irritations of that membrane. It is true that after the administration of mereury, there is a hyperseeretion of the salivary glands, but this is due to the inflammation of the gums, and not to the direct action of the mereury, whieh only exereises its primitive and direct action on the mueous membrane of the mouth, for were it otherwise, we should observe salivation preeede inflammation of the mouth, and sueh is not the ease ; on the eontrary, salivation is never determined previous to swelling of the gums.

Now, if hydrargyriasis be further developed by aeecumulative doses, the swelling will go on inezeasing, and we shall eneounter uleerations, and tumefactions of the tongue, exeoriations of the internal membrane of the eheeks, and oeeasionally earies of the alveoli. There will ensue a very marked modification in the eireulation and ealorification of the blood ; the skin will be hotter, eoneomitant with a veryappreeiable aeeleration of the pulse, whieh is evidently febrile : but there is this peeuliarity in mereurial fever, that instead of stimulating the vital forces as it progresses, it produrees depression of the pulse and extreme debility. This last mode of action is readily aeecounted for, by reason of the powerful influence whieh mereury exereises, not only on the nervous system, but the blood that it impoverishes.

It is not very clear whether mereury acts directly or

indirectly on the heart and other organs ; however, it is certain that it provokes violent diarrhoea, also accidents to the nervous system, which are never determined by any other agents. Artisans who, from the nature of their crafts, are compelled to handle or be exposed to the emanations of mercury, frequently experience derangements of the nervous system which produce trembling, and sometimes degenerate into positive mania, very similar to that arising from *delirium tremens*; these accidents offer the further resemblance of being generally characterized by hallucinations and great frights.

In whatever form mercury be administered it is not uniform in its action, nor is hydrargyriasis so easily determined in the adult male as in the female. Professor Récamier mentions a lady patient who could not take the slightest dose of mercury without being affected with an erysipelas of the face. M. Breschet has known an abundant salivation to set in the day following the cauterization of the os uteri with nitrate of mercury.

The accidents resulting from hydrargyriasis, irrespective of those to the skin, and the regions of the bones (which I shall presently have occasion to more conveniently examine) are from their nature sufficiently formidable to evoke the scrupulous attention of the physician—cachexia, ulcerations of the mouth, pharynx, caries of the alveoli, diarrhoea, trembling, mania, &c., such are the accidents for which mercury is accountable; however, it is consolatory to know that they are never to be dreaded when mercury is administered with discretion by a discriminating practitioner.



The syphilitic eruptions of the skin most frequently arise several months after the infection ; these are pustules, tubercles, scabs, &c. ; under the influence of mercury we meet with papules, vesicles, erythemas, but rarely impetiginous pustules. The progress and form of the respective eruptions differ in several essential particulars ; in the first, the form is strictly chronic, the progress of the lesions is slow, frequently stationary for a length of time ; whilst the mercurial accidents are acute, and almost constantly manifest themselves suddenly during the absorption of the metal, particularly if salivation has set in. Assuredly, no attentive physician who is in any degree experienced in the pathology of cutaneous diseases, will fail to distinguish those forms, usually of a fleeting character, from the fixed and obstinate symptoms due to syphilitic infection. Doubtless, instances will occasionally present themselves where the diagnosis will be embarrassing, but these are precisely the cases in which discrimination is all important, and semiotics will aid in determining what symptoms are specific and those that are accidental.

Affections of the bones are also common to both syphilis and hydrargyriasis, these are, caries and necroses. But, here the characteristic distinctions are more marked than in the accidents to the skin. The syphilitic necroses and caries, either develop themselves in a bone, without any ulcer or abscess having previously existed, or else they are caused by the extension of the syphilitic ulceration to the adjacent bones. In this latter case, the seat and form of the ulceration per-



fectly enlighten the diagnosis. Syphilitic ulcerations occupy the pendulum palati velum, the olfactive mucous membrane, that of the larynx ; mercurial ulcerations are found on the gums, at the commissure of the jaws behind the last molar, the free edge of the tongue, the internal surface of the cheeks. These latter occur during the acute period of the hydrargyric infection, the former, during the chronic period of syphilitic infection ; mercurial ulcerations cause rapid caries and necrosis of the alveoli, and sometimes of a great portion of the maxillary bones, but the diseased action to those parts always begins at the alveoli, or the coronoid apophysis ; whilst syphilitic ulcerations bring about the destruction of the palatine bones, and the structure of the nasal fauces. Mercurial ulcerations are generally more fetid, painful and repulsive than those that are syphilitic ; they are most frequently accompanied by a general cachexia which is rarely observed in syphilis.

Cachexia may be either mercurial or syphilitic, but the form and progress of the disorder, differ very materially according to one cause or the other. Under the influence of an active mercurial treatment, cachexia ordinarily arises in a few days ; if the doses are small it will be developed more slowly, but its distinctive characteristics are always the same, swelling, lividity, hæmorrhage of the gums, puffiness of the face and lower extremities, serous effusions in most of the cavities, habitual diarrhœa, depression of the mind. On the contrary, syphilitic cachexia is only observed when the disease is of old standing. It is more or less always the consequence of some chronic, or organic lesions,

or of acute pains that have deprived the patient of sleep ; it is accompanied by great deperishment, an extreme falling in of the cheeks and all the phenomena denoting a state of marasmus. If now we examine the concomitant symptoms of both cachexias, error is no longer possible, unless they exist conjointly, which frequently happens, but then the reason is obvious.

Nocturnal osteocopic pains have been attributed to both hydrargyriasis and syphilis. It is doubtful as concerns hydrargyriasis ; what is certain is that those who habitually handle mercurial preparations are very rarely subject to them. The very few observations we have to guide us show that the pains existed in the day but more particularly at night ; that their seat was all the members and that they were not localized as are those of syphilitic origin. The error may have arisen from inattentive observers who have confounded them with rheumatic pains, the paroxysms of which are more frequent we know at night than in the day. Besides, if on the one side syphilitic pains are acute chiefly at the beginning of the night, we find on the other that rheumatic pains increase in intensity towards the morning. Add to this that syphilitic pains are almost always concomitant with exostoses and periostoses, which is never observed in cases of hydrargyriasis.

Having compared the differential characteristics of the resembling symptoms of syphilis and hydrargyriasis we may now examine the specific effects of mercury as a therapeutic agent in syphilis. Before proceeding, it may be as well to state--what is well known--that the natural progress of syphilis in certain favoured latitudes, the therapeutic methods formerly

employed, daily observations show that the disease is susceptible of a spontaneous cure, so that an organism modified by the virus may, in time, recover its normal condition without it always being necessary to have recourse to an active medication or to particular agents. In this respect, syphilis does not differ from variola, typhoid fever, rheumatism or any other disease in which the part of the physician consists simply in aiding the efforts of nature and favouring the tendency to recovery. But in this the question does not lie : it consists in knowing whether secondary syphilis is longer to cure and more likely to relapse when a mercurial treatment has been resorted to, or when such a treatment has been omitted.

That syphilis is curable is evident as it yields to treatment, it is equally clear that by simply conforming under certain favourable circumstances, to the laws of hygiene, it will cure without the aid of art. Cases of spontaneous cure rarely come under observation, for when patients apply to the physician they ask to be treated, and, what practitioner would take upon himself the responsibility of allowing so dangerous a disease to run its course? Still less do we encounter the disease at the period of incubation ; it is only when the primary symptom breaks out that the patient asks advice. Yet, it may be asked, whether in cases of doubt, there is not something to be done. At a time when the syphilitic virus was looked upon as a poison, it was believed possible to oppose it directly in the blood ; that theory has a few partisans even now. We hear constantly reiterated that mercury neutralizes the

syphilitic virus, and the search after the antidote of syphilis is as vainly pursued as that of cholera and many others. That a poisonous substance can be locally neutralized no one denies; but it is equally incontestible that when absorbed, we can only combat the manifestation of its effects by producing physiological counter-effects capable of re-establishing the function primitively disordered. Now, mercury in such an instance, considered by the partisans of the neutralization of poisons a specific agent, can no more modify or destroy the syphilitic virus, during the period of incubation, than later, it can prevent the breaking out of the secondary and tertiary accidents.

The primary symptom appears, its nature is not doubtful, shall we at once commence a specific treatment or wait for the manifestation of constitutional accidents? When the induration is well characterized, Ricord says that that is sufficient to prescribe a general treatment and attack the diathesis. Diday gives mercury in cases of Hunterian chancre; in those of chancreous erosion, no internal treatment. Baerensprung, on the contrary, formally repudiates mercury and recommends in cases of indurated chancre derivatives and sudorifics; the chancre heals more slowly and relapses are more frequent, but they only occur during the early months of the infection, at the latest during the fourth, and then, the constitutional accidents are limited to superficial eruptions of the skin and mucous membranes. He says that he had never observed tertiary symptoms in those patients treated by him without mercury.



Here is a conflict of opinion ! Let us see what we must expect from a mercurial course at this stage of the disease—will it prevent constitutional manifestations ? Martins, Leudet, Gibert, Bazin, Bassereau, and H. Lee are all agreed in saying that a strict observation establishes that mercurials employed in the cure of primary symptoms do not prevent constitutional accidents, and that the most they do, is to retard their breaking out. Numberless facts and observations could be brought forward to prove the inability of mercury to prevent general accidents. Thus, one point may be established : mercury in no wise opposes the manifestation of constitutional accidents, consequently it cannot attack the diathesis as M. Ricord pretends, and, in this point of view, it is unnecessary if not injurious. We may therefore conclude :—

That at the period of the primary symptom, a mercurial treatment is not indicated.

That our attention should be directed to the general state of the patient's health, and to recommending a judicious observance of hygienic principles.

Between the primary symptom and the first manifestation of constitutional accidents there exists a series of preursory symptoms, on which I do not intend to dwell further than to note that they sometimes not only persist, but are aggravated during the early period of the eruption. In such instances a system of expectancy is desirable and mercury should be delayed or suspended until they have subsided. These symptoms usually disappear in the course of a fortnight under the influence of iron and iodine.

There has always been great diversity of opinion concerning the amount of mercury to be taken and the length of time it is to be continued. Here we should recollect the physiological law: we are nourished by what we digest and not by what we eat; we are cured, not by the quantity of the drug prescribed but by that which is absorbed. It was Hunter's practice to prescribe mercury in proportion to the number of ulcerated surfaces and the intensity of the disease. Dupuytren used to continue the course after the extinction of the manifestation of the accidents for a time equal to that necessitated for their disappearance. A six months' mercurial course, followed by three months of iodine, intended to guard against the remote accident of the diathesis, "such is" says M. Ricord, "the medication that gives the best sustained cures, which succeeds in the enormous majority of cases to truly neutralize the toxic virus, I would willingly say to cure syphilis, at least in the generality of its manifestations." No serious reason, however, justifying the continuation of the mercurial treatment after the complete subsidence of a syphilitic resolution, the employment of mercurial preparations should be suspended to be resorted to again in the event of a new eruption.

It is to hygiene much more than to therapeutics that we must look to avoid relapses, uproot the disease and restore to the organism its normal qualities. A special remedy for secondary syphilis, mercury is not on that account to be always relied upon. A bad state of the digestive organs, general debility, a tendency to



chloro-anemia are counter-indications that must be taken into account. Subjects with weak or strumous constitutions, predisposed to consumption and other diseases of the same class, should have mercury administered to them but in cases where it has been ascertained to be indispensable. Nevertheless, Sir Benjamin Brodie was of opinion that scrofulous subjects should be submitted, in undoubted cases, to a mercurial treatment, because if mercury is baneful, syphilis is still more so. Robust individuals with every appearance of vigorous health are not always the best able to bear a mercurial course; enquiry should be made whether their constitutions are undermined by intemperate habits and an irregular life; in such cases it is best to defer the employment of mercury until the constitution is restored, in order to avoid having to contend, at some future time, with both mercurial and syphilitic accidents. From unforeseen causes mercury sometimes acts like a poison. This is a reason to watch carefully its effects in those to whom it has never been previously administered. Lastly, far from exercising a favourable action and determining a happy termination of syphilitic accidents, mercury may disturb the general health and aggravate the more the manifestations of syphilis as it is given in greater quantities. In such conditions, it is advisable to suspend its employment; the patient will then quickly recover and later we may return to it with probabilities of success. Neither should we persist in the use of mercury beyond the time necessary for its action, when it does not exercise any therapeutic effect,

we should rather have recourse to a strict observance to hygiene combined with tonics and reconstituants.

Should the phenomena of ehloro-anem~~y~~<sup>ia</sup> complicate those of syphilis, preparations of iron, exercise in the open air, sea-bathing will be found to be of incontestable usefulness. Excesses of spirituous liquors, high living, great fatigues must be firmly discountenanced. The great aim is to place the organism in the most beneficial hygienic conditions, with the view of favouring the effects of therapeutic agents.

Syphilis is not uniform in its symptoms, and these vary in degrees of intensity: it follows that we must proportion the energy of the treatment to the intensity of the manifestations, the power of resistance of the disease and suspend the use of specifics when their action ceases; for it is a grave error to persist on the supposition that because specifics do cure they must always cure. It must be recollected that where mercury and iodine of potassium cease to be reconstituents they become alterants and that however small the doses, cachexia is the fatal consequence.

In the presence of a syphilitic eruption of the second or tertiary order, we ought to be prepared to prescribe strong doses, taking into account the constitution of the patients, beginning by small ones, gradually increasing them until the therapeutic effects are produced, persevering whilst the curative action progresses, and suspending the course at once on the slightest accidents to the gums, the stomach, or the intestines. In all stages of the disease our best guides will always be the state of the constitution, the degree of intensity of

the morbid manifestations, the physiological effect exercised on the organs, and the therapeutic effect produced on the lesions.

But the really all-important point in practice is to know which is the best and most reliable treatment to ward off relapses and secure a radical cure of the disease. We have seen M. Ricord's advice. Is it not astonishing that M. Ricord, who believes the syphilitic diathesis to be incurable, should counsel the continuance of specifics long after all apparent manifestations have disappeared? Surely when all appreciable symptoms have disappeared we no longer have to deal with syphilis, properly so called, that is to say, the disease itself, but with a latent unseizable state of syphilis—namely, the syphilitic diathesis. Such a condition is sufficiently suggestive: our endeavours should tend to transform into apparent symptoms the latent state of the disease. Should we succeed in provoking fresh manifestations, we can again have recourse to specifics, and the symptoms will yield as readily as those that preceded them; if, on the contrary, we fail in our attempts, we should continue to act, through general alteratives, on the constitution which will evidently be the better guarded against relapses as it shall the more have resisted our efforts to promote them. This might be called the *eliminating* treatment in opposition to the *specific*, the former completing the latter. “Were we possessed,” says Swediaur, “of a remedy capable of producing this effect, it would doubtless be an important acquisition to guide the practitioner and tranquillize the patient.

. . . However, I have made use, very successfully, in many equivocal cases, of iron and ferruginous preparations. I have seen many persons, healthy in appearance, but uneasy about their state, who, after a few days of those remedies, manifested evident symptoms of syphilis."

Now that we know the nature of the primary symptom invariably resulting in constitutional infection we pay less attention to the determining causes of syphilitic eruptions; these causes, not always very evident, frequently pass unnoticed; however, they exist, and there is reason to suppose that they exercise a not unimportant influence in the development of the symptoms. In the present state of our knowledge concerning the plurality of venereal diseases, the statistics we possess on this point are no longer of such weight as formerly, yet they are not completely destroyed. M. Cazenave has remarked that, in thirty-seven cases, the determining causes were:—

|   |   |
|---|---|
| Vapour baths, sea and river bathing . . . . . | 9 |
| Excesses of drink . . . . .                   | 9 |
| Strong moral affections . . . . .             | 4 |
| Intermittent fevers . . . . .                 | 2 |
| Fatigues . . . . .                            | 3 |
| Wounds, contusions, punctures . . . . .       | 5 |
| Child labour . . . . .                        | 1 |
| Application of a blister . . . . .            | 1 |
| Violent cold . . . . .                        | 1 |
| Re-appearance of catamenia . . . . .          | 1 |
| Médecine Leroy . . . . .                      | 1 |

M. Yvaren's table differs little from the above. In twenty cases, the determining causes are attributed to :—

|  |          |
|--|----------|
| Damp cold . . . . .                      | 8        |
| Melancholy moral emotions . . . . .      | 3        |
| Child labour . . . . .                   | <b>3</b> |
| Acute diseases . . . . .                 | 2        |
| Late hours and mental labour . . . . .   | 1        |
| Indigestion . . . . .                    | 1        |
| Wounds . . . . .                         | 1        |
| Thermal sulphurous water baths . . . . . | 1        |

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We need not attach undue importance to determining causes, for we know that the syphilitic infection once accomplished, the manifestations must fatally arrive ; but extraneous influences may, doubtless, promote or retard, revive or attenuate, vary or modify the conditions of the manifestations. We find that the exciting influences are varied and numerous, but one is enormously predominant — namely, bathing in general, which shows that by exciting the skin we shall best attain the result we have in view. Thus, exciting baths will frequently be of the highest service.

It must not, however, be imagined that latent syphilis can be cured only by provoking external manifestations to be afterwards specifically treated ; far from this—general alteratives alone are sufficient to triumph. We may, with confidence, appeal to iron, cod-liver oil, and all medicines susceptible to bring about a more rapid renovation of the organism than in



the normal state and consequently to carry along with them the morbid principle in that accelerated current of composition and decomposition.

The treatment of latent syphilis is surrounded by great difficulties, it is made up of many independent elements, unattended by any apparent effects to guide us, and can be prosecuted but by acquiring the unrestricted confidence of our patients. The physician has done much, no doubt, when he has relieved a patient of a syphilitic eruption, but he would be failing in his duty were he to dismiss him without warning him not to depend upon a fallacious security which might plunge him into a state far more dangerous than that from which he has just emerged.

At the time when the opinion prevailed that mercury was an infallible specific against every form of all venereal diseases, it cannot be denied that much mischief was wrought by the routine of practitioners; this opinion naturally led to the supposition that whatever effects were produced by the virus, these effects were amenable to the action of the specific by simply proportioning the doses to the intensity of the manifestations. From this belief in the efficacy and indispensability of mercury most deplorable consequences ensued—consequences far more disastrous than those arising from the natural progress of the disease left to itself.

The discovery that mercury does not control, under all circumstances, every state of venereal diseases, and that the effects of the virus are not necessarily progressive, unless influenced by the specific, is not of

recent date ; but the apparent causes of the capriciousness of the disease escaped early observers, and we must look to the latest researches into the natural history of syphilis to emerge from the chaos and inextricable confusion which has encompassed venereal diseases for more than three centuries and a half.

The erroneous opinion that syphilis was fatally progressive unless controlled by mercury, has been superseded by the equally dangerous one, that a specific treatment does not exercise any influence whatever over the disease, and that more injury than advantage results from its action.

The anti-mercurialists pretend, that as modern inquiries have proved that syphilis may always be cured without mercury, and as constitutional manifestations are a rare occurrence after a simple treatment, it is better practice to abstain from mercury which is often more injurious to the constitution than the natural development of the disease itself.

This mode of reasoning is more specious than just. I have already admitted the possibility of the spontaneous cure of syphilis. I will admit further that a great proportion of syphilitic cases may be cured without the aid of mercury. What does this prove ? Supposing even the universal curability of syphilis without mercury, it will not prejudice or form a positive objection to mercurial treatment. The question is not to prove whether syphilis will cure with or without mercury, but is confined to showing whether greater advantage and security will be derived by a mercurial treatment than by its omission, and whether

any positive or counter-balancing injury is to be dreaded from a judicious employment of mercury ; for we must not argue against an appropriate use of a remedy by adducing consequences which may arise from its improper and undiscerning employment.

Now the most uncompromising anti-mercurialists do not deny that the length of time necessary to obtain a cure of secondary accidents is very considerably shortened by a mercurial treatment, and as regards the possible danger to the constitution, I am prepared to assert that during a period extending over fifteen years, five of which were passed at the Hospitals du Midi and St. Louis, at Paris, and two at the military hospitals in the Crimea, I have never seen any injury result from, or had cause to regret having resorted to a mercurial treatment in cases of undoubted syphilis. Now, since we can cure secondary manifestations more quickly by mercury than without, and since we need not fear unhappy consequences to arise from a judicious exhibition of this medicament, why should it be banished from the treatment of syphilis rather than other specifics equally dangerous if improperly employed in other diseases ? Medicines are not usually prescribed, through a conviction that diseases are incurable without them, but from the experience we have acquired that health is more rapidly restored by a judicious interference of art. Where else should we seek our guides ?

In conclusion, I do not hesitate in saying that the injudicious clamour raised against mercury cannot be too much deprecated, creating as it does unmerited

prejudices and imaginary alarm, besides tending to disarm the physician of a highly precious remedy in the treatment of the most complicated and obstinate malady he is called upon to contend with. These prejudices, however, are not only gradually, but rapidly dying out. Let us hope that ere long an enlightened course of practice will be adopted, whereby the dangers of the old mercurial and of the modern anti-mercurial practice will be equally avoided.

In recommending mercury as an anti-syphilitic agent, I neither intend to deny nor conceal that positive inconvenience will occasionally arise from its administration. In certain subjects of peculiar constitutions, its irritating properties will sometimes supersede its curative virtues, and instances occur where its agency seems rather to operate prejudicially against the patient's general health than to promote any beneficial effects towards removing the disease for which it is exhibited; hence the desirability of possessing a medicine equally efficacious in the treatment of syphilis. This concession, however, forms no valid objection against mercury exclusively. As I have already observed, mercury has been found hitherto to be the most reliable remedy we command for syphilis. Its virtues have long been ascertained and approved. It deserves, therefore, that its inconveniences should be studied, removed, and if possible, prevented. We shall then, perhaps, confer more real benefit on mankind by successful efforts of this nature than by the publications of volumes, written in its abuse, or in praise of substitutes which may amuse and deceive for

the moment, but which, at length, are consigned to the oblivion they merit.

I believe that few enlightened men, when seeking the advice of a physician for secondary syphilis, would feel quite composed in their minds, or secure as to their future constitutional state, were they merely recommended a change of climate, a more severe regimen, and a dependence on the unassisted powers of nature; yet, vague and unsatisfactory histories of spontaneous cures have been copied and referred to by succeeding authors, in strains calculated to inspire the ignorant with misplaced confidence and the timid with fear. It is much to be regretted that many physicians, deservedly eminent, have so frequently given the sanction of their authority, to opinions which they have never fairly examined, or, at least, a tacit acquiescence to a practice, the merits of which they have not had sufficient opportunities to judge. This mode of proceeding must always call forth the indignant protests of independent minds, but more particularly, where the health and happiness of both present and future generations are involved. The laws of strict integrity demand that the physician should record the history of disease, and the effects of remedies with the same sacred regard to truth as is incumbent upon every honest man, in whatever sphere of life he may be placed.

The rapid strides made in syphilography during the last fourteen years have taught us to distinguish, beyond the shadow of doubt, the nature of every venereal affection that comes under our observation. There-



fore, the practitioner who shall administer mercury where it is not indicated or persevere in its employment, beyond the time when it can serve any good purpose, can no longer retrench himself, to save his responsibility, behind the dismantled bulwark of the capriciousness of its action ; he is guilty of a moral crime, of which no special pleading at the bar of his compeers can clear him, and it ought to be so for the honour of our profession, so long as we exact an implicit submission to our dictates at the hands of our patients.

THE END.

